AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-014

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-014.01
AMSAT Argentina Launches Pehuensat-1 Amateur Radio Satellite

AMSAT News Service Bulletin 014.01
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.01

AMSAT Argentina announced that Pehuensat-1, the 2nd Argentine amateur satellite was launched from India by an ISRO PSLV-C7 4 stage rocket on January 10. It attained a 635/640 Km polar sun synchronous orbit with an of inclination 97.92 degrees.

Once activated Pehuensat-1 will transmit voice messages in three languages, English, Hindi and Spanish and will be heard on 145.825 Mhz plus an AX25 1200 baud packet following the voice message. More information can be found at: http://www.amsat.org.ar?f=6.

LU8YD, Alejandro at the Pehuensat control station at the University of Comahue reported hearing weak signals on 145.825 MHz after the satellite was activated. The satellite's controllers are investigating and plan to report on their findings.

A quick view of the next passes at your location is available on-line. Go to http://www.amsat.org.ar, then click on the small revolving globe off of the coast of Argentina, select your location from the map, and then select PEHUENSAT-1.

AMSAT Argentina provided the following 2-line keplerian elements:

PEHUENSAT-1
1 29710U 07001B   07011.96059777 -.00000065 00000-0 -16231-5 0   101

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2 29710  97.9483  73.1578 0012960 268.9216  91.0485 14.79281628   278
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[ANS thanks AMSAT Argentina for the above information]

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SB SAT @ AMSAT $ANS-014.02
FCAL Designated NRL-OSCAR-62

AMSAT News Service Bulletin 014.02
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.02

Bill Tynan, W3XO, AMSAT OSCAR Coordinator issued the following statement this week, "By the authority vested in me by the AMSAT-NA President, I am pleased to issue an OSCAR number for the FCAL amateur radio satellite.

From the information provided me, I conclude that, FCAL complies with all of the requirements for an OSCAR number. In accordance with your request, the prefix will be NRL. Thus, FCAL will henceforth be known as NRL-OSCAR-62 or NO-62.

AMSAT-NA and I wish to congratulate you and your entire NRL Amateur Radio Club team for the successful construction, testing and orbiting of this spacecraft."

73 and Best Wishes,
William A. (Bill) Tynan, W3XO

[ANS thanks Bill, W3XO for the above information]

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SB SAT @ AMSAT $ANS-014.03
AMSAT Opportunity for Windows Programmers

AMSAT News Service Bulletin 014.03
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.03

AMSAT-NA VP Operations, Drew KO4MA, posted a help wanted request this week. AMSAT-NA has two opportunities available for Windows programmers. Drew said, "We have two projects that are in need of talent, both in support of Operations. This is a great chance to support AMSAT and amateur satellites in a real and tangible way."

The first project involves writing a GUI XP compatible program to read mixed ASCII and binary telemetry files, extract, reformat, and display the data. Some basic statistics and producing a .csv file are also highly desireable features. Console versions of these programs already exist created in Visual C++ 2005 Studio Express. Support for the finished product will be limited to a few internal users in support of AO-51.

The second project involves developing a GUI XP compatible program around some prexisting AX.25 and soundcard code for a UI satellite communications program. Ease of installation and use are high on the priority list for this project, and support will be required for widespread use. A team approach may be best regarding support (read this as "bring a team with you"). This

will be done in support of an effort to increase usage and visibility of the several Microsats currently in orbit and functional.

Please send an e-mail to ko4ma@amsat.org indicating your willingness to help, and Drew will be happy to explain further.

[ANS thanks Drew, KO4MA for the above information]

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SB SAT @ AMSAT $ANS-014.04
RAFT Control Station Needed in Southern USA

AMSAT News Service Bulletin 014.04
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.04

Bob, WB4APR, writing from the US Naval Academy Small Satellite Laboratory says, "We need a volunteer command station for RAFT in the southern states from Arizona through Texas to Georgia. The southern command station will enable RAFT's 216.98 MHz radar fence transponder."

Station requirements include:
1) An AZ/EL tracking OSCAR array on 2 meters with preamp capable of weak signal reception.
2) AX.25 standard TNC at 1200 baud and PC to run a DOS program.
3) A recorder to record the 145.825 MHz downlink audio when RAFT flies through the fence.

You need access to your station during morning (~9 AM) or afternoon (~5 PM) passes.

Bob continued, "The RAFT packet-to-voice mode has been enabled for the first 3 weeks and several stations have made contact. Next week, we will enable the PSK-31 transponder on RAFT. This transponder is 28.120 USB MHz PSK-31 SSB uplink and 2 meters FM down. The PSK Mode is turned on when a station performs a packet 'CONNECT RAFT' which will bring up the 10m RX and 145.825 TX for 1 minute."

RAFT Satellite information is available on-line at:
http://www.ew.usna.edu/~bruninga/ande-raft-ops.html

Telemetry web pages for the US Naval Academy satellites are available at:
http://www.g4dpz.me.uk/ANDE/RAFThome.do
http://www.g4dpz.me.uk/ANDE/home.do

[ANS thanks Bob, WB4APR for the above information]

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SB SAT @ AMSAT $ANS-014.05
Updated Firmware Available for the LVB Tracker

AMSAT News Service Bulletin 014.05
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.05

Howard, G6LVB reminds users of the LVB Tracker rotor control system that

he has a new set of firmware that includes compatibility for use with
the Predict tracking program.

Howard explained, "I discovered that Predict sent null characters at the
start of each command that meant the old firmware got confused and ignored
the command. The updated LVB Tracker version ignores these null characters."

Contact Howard at g6lvb@amsat.org if you would like to test the new firmware
and give it the thumbs up.

When you purchase an LVB Tracker kit, a handsome donation goes towards
building new satellites!

See:
http://www.uk.amsat.org/index.php?option=com_content&task=view&id=245&Itemid=142
(watch the line wrap)

[ANS thanks Howard, G6LVB for the above information]

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SB SAT @ AMSAT $ANS-014.06
Help Define the Mission for University of Lousiana Cubesat Project

AMSAT News Service Bulletin 014.06
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.06

Nick, K5QXJ reported, "The cubesat team at the University of Louisiana is in
the process of defining its second mission for its cubsat project. The team
has decided to fly a cubesat that has a educational component. We are asking
for ideas that would excite K through 12 students that can be flown on a
cubesat such as 1 watt of dc power in a 4 inch cube to help students receive
it. In addition to the education component the team is thinking of flying a
high efficient radio perhaps BPSK with a forward error corrected code with
Eb/No of < 3 db. Again here we are asking for input in the mission defini-
tion and help in the implementation including peer review."

Contact Nick at k5qxj@amsat.org with your ideas.

[ANS thanks Nick, K5QXJ for the above information]

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SB SAT @ AMSAT $ANS-014.07
Space Shorts From All Over

AMSAT News Service Bulletin 014.07
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.07

+ If you watch the morning or evening sky and have a clear view of the
  horizon, you will be able to spot Comet McNaught. Spaceweather.com
  provided these viewing tips:

  o At dawn, go outside and face east. Using binoculars, scan the horizon.
  o The comet is located just south of due east.
  o At sunset, go outside and face west. Using binoculars, scan the horizon.

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  o The comet is located low and to the right of Venus
  o A clear view of the horizon is essential for either sunrise or sunset.

+ A notice seen on the AO-27 web page at http://www.ao27.org/ says, "We have
  successfully reset the CPU on AO-27. AO-27 is now commandable and is sit-
  ting at the bootloader. We are beginning the process of uploading flight
  software. The transmitter was very strong during our tests. This is very
  good news."

+ A paper presented at the meeting of the American Astronomical Society in
  Seattle last week suggests that new analysis of Viking mission results
  indicates presence of life on Mars.  Scientists said, "We may already have
  'met' Martian organisms." This hypothesis arises from on-going analysis of
  data from experiments done by the Viking Mars landers in the late 1970s.
  The researchers propose that the microbe-like organisms use a mixture of
  water and hydrogen peroxide as their internal fluid. Other scientists dis-
  pute this claim, stating no one has been able to duplicate these condi-
  tions in laboratory testing on Earth. (MarsDaily.com)

+ Britain is considering plans for its own moon shot, the BBC said on
  Tuesday, citing plans submitted to the body that funds British space
  exploration.  Proposals for two missions have been submitted to the
  Particle Physics and Astronomy Research Council, and the first, if
  approved, could be launched by 2010.  According to Professor Martin
  Sweeting, founder and chief executive of Surrey Satellite Technology
  Ltd., which prepared the study for the funding body, the cost of space
  exploration had fallen enough for Britain to "go it alone".  British
  science officials later stated that the moon mission proposal has a
  lower priority than other space initiatives under consideration at
  this time. (SpaceDaily.com)

+ The deadline is approaching for you to send your name to the moon aboard
  the Japanese Space Agency's Selene Lunar Explorer.  You have until Jan-
  uary 31 to submit your name and a short message which will be affixed to
  the space craft frame. Your name is limited to 10 letters and your short
  message is limited to 40 letters.  You can submit your information at:
  http://www.jaxa.jp/pr/event/selene/index_e.html

+ SKN Best Fist Nominations Due.  Please send your nomination to
  w2rs@amsat.org. A list of those nominated will be published in an ANS
  bulletin in early February, and in The AMSAT Journal.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-014.08
ARISS Status Report For the Week of January 8, 2007

AMSAT News Service Bulletin 014.08
From AMSAT HQ SILVER SPRING, MD.
January 14, 2007
To All RADIO AMATEURS
BID: $ANS-014.08

1. Australian Scout Jamboree Contact Successful

A successful Amateur Radio on the International Space Station (ARISS)
contact was carried out with scouts attending the Australian Scout
Jamboree 2007 on Sunday, January 7 via the telebridge station VK4KHZ in
Australia. Nineteen students were able to ask one question each of Sunita
Williams, KD5PLB. Approximately thirteen thousand scouts and eight thou-
sand leaders from 53 countries attended the event. Photos taken of the
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Jamboree's amateur radio station may be viewed on:
http://www.wia.org.au/news/2007/20070103-01.php

For a write up and photographs of the contact, see:
http://www.wia.org.au/news/2007/20070108-01.php

2. ARISS Completed School Contacts

Sherman Elementary School in Henrietta, New York completed a direct ARISS contact on Monday, January 8, 2007. The contact may be viewed on:
https://breeze.rit.edu/ariss.

On Monday, January 8, 2007, students at Dilworth Elementary School in San Jose, California spoke with Sunita Williams, KD5PLB, on board the ISS via amateur radio.

3. ARISS Upcoming School Contacts

Seventh grade students from Northlawn and St. Anthony Schools in Streator, Illinois have been scheduled for an Amateur Radio on the ISS (ARISS) contact on Tuesday, January 16 at 17:28 UTC. The Starved Rock Radio Club, a local Amateur Radio Club, will assist in the contact.

Romeo Elementary School in Dunnellon, Florida has been approved for an ARISS contact on Wednesday, January 17 at 17:53 UTC. The coordinating teacher received two grants which were used to purchase radio equipment, an antenna, a satellite tracking program and ARISS resource materials. Arrangements have been made for astronaut Joe Acaba, a former Dunnellon teacher, to visit around the time of the ARISS contact. The Silver Spring Radio Club set up a website for the community to keep up with ARISS activities.
See: http://www.phys.ufl.edu/~eshop/ariss/ARISS.html

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM